Application No.: 10/524,574

Amendment Dated: December 11, 2008

Reply to Office Action Dated: June 11, 2008

In the Claims:

Please amend the following claims as indicated:

Claim 1. (Currently Amended): A process for recovering a valuable metal in the form of nickel from a leach liquor obtained by processing laterite ores and concentrates that are contaminated with iron by any leaching process including one or more of heap leaching, pressure leaching, bacterial oxidation, and atmospheric tank leaching, the leach liquor containing the valuable metal and iron in solution, which process includes the <u>following</u> steps after the leach process of:

- (a) processing the leach liquor by reducing ferric ions to ferrous ions in the leach liquor using a suitable gascous reductant, the leach liquor being obtained by processing laterite ores or concentrates of the ores that contain the valuable metal and are contaminated with iron;
- (b) neutralizing the <u>processed leach</u> liquor to reduce the free acid concentration in solution to levels suitable for nickel precipitation <u>while maintaining iron in the ferrous</u> state: and
- (c) precipitating the valuable metal using the reductant and seed particles under process conditions, including one or more of seed particle size, seed composition, and temperature, that are selected to maximize nickel precipitation and to minimize iron precipitation.

Claim 2. (Currently Amended): The process defined in claim 1 wherein the reduction step (a) includes reducing ferric ions to ferrous ions using the reductant in the presence of an initial concentration of 40-90 g/l free acid.

Claim 3. (Canceled)

Claim 4. (Currently Amended): The process defined in claim $3\ \underline{1}$ wherein the gaseous reductant is H_2S .

Claim 5. (Previously Presented): The process defined in claim 1 wherein the neutralization step (b) increases the pH of the solution to 2.

Claim 6. (Canceled)

Claim 7. (Canceled)

Application No.: 10/524,574 Amendment Dated: December 11, 2008 Reply to Office Action Dated: June 11, 2008

Claim 8. (Previously Presented): The process defined in claim 1 wherein the valuable metals are nickel and cobalt.

Claim 9. (Previously Presented): The process defined in claim 1 wherein the laterite ores are ores that contain nickel in a chlorite mineral phase.

Claim 10. (Previously Presented): The process defined in claim 1 wherein the process conditions for the precipitation step (c) include operating at a partial pressure of the gaseous reductant of less than 60 psi.

Claim 11. (Original): The process defined in claim 10 wherein the gas partial pressure is less than 40 psi.

Claim 12. (Original): The process defined in claim 11 wherein the gas partial pressure is less than 30 psi.

Claim 13. (Original): The process defined in claim 12 wherein the gas partial pressure be less than 25 psi.

Claim 14. (Previously Presented): The process defined in claim 1 wherein the process conditions for the precipitation step (c) include operating at a liquor temperature of at least 50°C.

Claim 15. (Original): The process defined in claim 14 wherein the liquor temperature is at least 60°C.

Claim 16. (Previously Presented): The process defined in claim 1 wherein the seed particles for the precipitation step (c) have a particle size of P_{50} less than 100 micron.

Claim 17. (Original): The process defined in claim 16 wherein the particle size of the seed particles is P_{50} less than 80 micron.

Claim 18. (Original): The process defined in claim 17 wherein the particle size of the seed particles be P_{50} less than 60 micron.

Claim 19. (Previously Presented): The process defined in claim 16 wherein the seed particle concentration for the precipitation step (c) is greater than 30g/l.

Application No.: 10/524,574 Amendment Dated: December 11, 2008 Reply to Office Action Dated: June 11, 2008

Claim 20. (Original): The process defined in claim 17 wherein the seed particle concentration is greater than 40g/L.

Claim 21. (Previously Presented): The process defined in claim 1 wherein the ratio of iron and the valuable metal in the leach liquor supplied to step (a) is greater than 2:1.

Claim 22. (Original): The process defined in claim 21 wherein the ratio is greater than 3:1.

Claim 23. (Original): The process defined in claim 22 wherein the ratio is greater than 5:1.